In the claims:

1. **(Previously presented)** A method for inducing an undifferentiated cell having activin receptors responsive to activin to differentiate to a neuronal cell phenotype, which undifferentiated cell is provided in a culture of two or more cells in vitro, comprising

providing said cell with a first agent that antagonizes the biological action of activin selected from follistatin, proteins that include at least one follistatin molecule, an α2-macroglobulin, and an inhibin, and

a second agent which agent is a neurotrophic factor that enhances a particular differentiation fate of the cell,

wherein said first agent and second agent are provided in amounts sufficient to induce differentiation of said cell to a neuronal cell phenotype.

2. **(Previously presented)** The method of claim 1, wherein said first agent inhibits the biological activity of activin by preventing activin from binding growth factor receptors on the surface of said cell.

3. **(Previously presented)** The method of claim 2, wherein said first agent binds said growth factor and sequesters said growth factor such that it cannot bind said growth factor receptors.

4. **(Currently amended)** The method of claim 3, wherein said first agent is selected from the [[a]] group consisting of a follistatin, an α2-macroglobulin, and a protein containing at least one follistatin module.

5-6. **(Canceled)**

7. **(Previously presented)** The method of claim 2, wherein said first agent inhibits binding of said growth factor with said growth factor receptors via its own binding to said growth factor receptor.

8. **(Previously presented)** The method of claim 7, wherein said first agent is an inhibin.

9-14. **(Canceled)**

15. **(Currently amended)** The method of claim 1, wherein said second agent is selected from ~~cilliary~~ ciliary neurotrophic growth factor, Schwannoma-derived growth factor, glial growth factor, striatal-derived neuronotrophic factor, platelet-derived growth factor, scatter factor, a vertebrate *hedgehog* protein, noggin, and a ligand for a *Notch* receptor.

16. **(Canceled)**

17. **(Previously presented)** The method of claim 1, wherein said neuronal cell phenotype comprises a neural progenitor cell.

18. **(Currently amended)** The method of claim 17 [[1]], wherein said neuronal progenitor cell is selected from a group consisting of a melanocyte progenitor cell, a glial progenitor cell, a sensory neuron progenitor cell, a sympatho-adrenal progenitor cell, a parasympathetic progenitor cell, and an enteric progenitor cell.

19. **(Previously presented)** The method of claim 1, wherein said neuronal cell phenotype is a terminally-differentiated neuronal cell.

20. **(Currently amended)** The method of claim 19, wherein said terminally-differentiated neuronal cell is selected from a group consisting of a microglial cell, a macroglial cell, a ~~schwann~~ Schwann cell, a cholinergic cell, a peptidergic cell, and a serotonergic cell.

21. **(Previously presented)** The method of claim 1, wherein said undifferentiated cell is selected from an embryonic cell, a fetal cell, and a neonatal cell.

22-44. **(Canceled)**